

CLAIMS

What is claimed is:

1. An air terminal for applying conditioned air to a space, comprising:
a housing presenting a flow path therethrough for the conditioned air;
a damper for controlling flow through said path;
a shaft on which said damper is carried, said shaft being mounted to said housing for movement between an open position of the damper wherein said flow path is open and a closed position of the damper wherein said flow path is closed;
a magnet and a metal latch element cooperating to apply a magnetic force for releaseably latching said damper in the open position when moved thereto and in the closed position when moved thereto; and
a power operated drive element connected with said shaft and arranged to overcome the magnetic force of said magnet and latch element to move the shaft between the open position and the closed position of said damper when power is applied to said drive element.
2. An air terminal as set forth in claim 1, wherein said drive element comprises a motor having a stator and a rotor connected directly with said shaft to rotate the shaft when the rotor turns.
3. An air terminal as set forth in claim 2, wherein said magnet and latch element are arranged to latch said damper each time said shaft rotates through an arc of approximately 90°.
4. An air terminal for applying conditioned air to a space, comprising:
a housing defining a flow path therethrough for the conditioned air;
a shaft rotatably coupled with the housing, the shaft spanning the flow path;

a damper coupled with the shaft whereby rotation of the shaft rotates the damper; and
an electric motor coupled with the shaft for rotating the shaft.

5. The air terminal of claim 4, wherein the electric motor has a rotor and a stator.

6. The air terminal of claim 5, wherein stator is coupled with the housing and has a portion with a circular outer periphery, wherein the rotor defines a cylindrical opening, wherein the circular outer periphery portion of the stator is received in the cylindrical opening of the rotor and wherein the rotor is coupled with the shaft.

7. The air terminal of claim 6, wherein the stator is mounted to the housing and wherein the rotor is mounted on the shaft.

8. The air terminal of claim 5, wherein the stator has a first pair of opposed windings maintained at a first polarity and a second pair of windings maintained at a second polarity, wherein the second polarity is different from the first polarity.

9. The air terminal of claim 8, wherein the rotor is ferromagnetic and has a first pair of poles opposite one another, the first pair of poles having the same polarity as each other, and a second pair of opposed poles, the second pair of poles having the same polarity as each other but opposite the polarity of the first pair of poles.

10. The air terminal of claim 9, wherein current flow through the windings actuates the electric motor and rotates the shaft approximately 90°.

11. An air terminal for supplying conditioned air, comprising:

a housing providing a flow path for accommodating passage of air therethrough;

a baffle plate associated with said flow path and providing an outlet for discharging air
from the flow path, said outlet varying in size with changes in the linear position
of said plate; and

an adjustable mount connecting said plate with said housing in a manner allowing linear adjustment of said plate to vary the size of said outlet.

12. An air terminal as set forth in claim 11, wherein said outlet is formed adjacent to and outwardly of an edge portion of said plate.

13. An air terminal as set forth in claim 12, wherein:

said housing is adapted for mounting on a ceiling;

said plate has a substantially horizontal orientation; and

said adjustable mount is arranged to allow vertical adjustment of said plate.